Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE RICARDIAN THEORY OF GOLD MOVEMENTS AND PROFESSOR LAUGHLIN'S VIEWS OF MONEY.

RICARDO considered the "precious metals," serving as money, to be divided among the several countries of the commercial world in certain normal proportions, governed by the comparative amount of money work to be done in each country. He maintained that the actual stock of gold held by a country could not vary far from its true normal share, because otherwise the exchange value of gold in that country would be too high or too low compared with the rest of the world. Gold, being an article of commerce, would flow to or from the country, according to the requirements of the case, so as to restore its normal value there, and thus also restore the true national share of the money metal. Conceiving the quantity theory of the value of money long since to have been vanquished in all familiar places, Professor J. L. Laughlin has called attention to the fact that a form of this theory serves as the basis of the ancient Ricardian explanation of specie distribution. This he regards as the principal defect of the classical doctrine, but upon detailed examination he finds a variety of other difficulties in it.[1]

In the view of the present writer it is possible to defend the old doctrine against all the criticisms advanced by Professor Laughlin. A number of the counts in his indictment take their origin in the well-known proximate, "business," "financial," conditions influencing gold movements, such as the state of bank reserves, the prices of securities in the stock exchanges, or the state of the money market. To the end of preparing the Ricardian theory for rebuttal against Professor Laughlin's particular method of attack, the first thing attempted in this paper will be a theory of specie movements which shall conform to the general lines of Ricardo's doctrine, but which shall also touch upon both the proximate causes of gold shipments and the relation of these to the ultimate forces controlling them. It will be found, so it is believed, that Professor Laughlin really has based his own explanation of specie movements upon a premise which is true precisely because, and only because, the forces alleged in the Ricardian theory are operative.

---

[1] See Chapter X., *Principles of Money*, on "Prices and the International Movement of Specie," or an article under the same title in the *Journal of Political Economy* for September, 1902. Page references will be given first to the *Principles*, and secondly, in brackets, to the *Journal of Political Economy*.

I.

For our present purpose all international movements of gold, whether the metal is contained in coin, bullion, or ore, may be divided into three classes. With the consent of the reader these will be called (1) producers', (2) commercial, and (3) financial, or money market shipments.[1] Producers' shipments are the large and more or less steady flows of gold which take place from those remote lands, in which it seems to be the lot of our principal supplies of new gold to be found, to the central commercial regions which afford its real market. Some of this metal is destined to be used in the arts. Much more will become coin. In any case, its transportation is but a stage in the larger process of the production or manufacture of refined bullion, jewelry, art objects, or coin. It is a peculiarity of these movements of gold that frequently they neither create commercial credit in favor of nor discharge a debt in behalf of the country from whose bosom the precious find has been taken. Thus, if ore shipped from the Canadian Yukon region to the United States be the property of American miners who keep and expect to use their wealth in the United States, the receipt of this gold from Canada creates no claim in Canada against us for payment of any article of value. In cases of this kind the single international shipment is an end of the matter, as between Canada and the United States; and the effects upon subsequent world movements of gold are the same as if this gold had been mined within the borders of the United States.

---

[1] The name "financial shipments," which of course has no reference to public finance, was suggested by the term "finance bills," which is used in money market reviews to designate bills drawn by bankers against borrowed foreign gold.

If new productions of gold were to cease and the world should thus be forced to do with a fixed supply, the principal kind of producers' shipments would come to an end; but commercial shipments would retain the same prominence which they now possess. For by this term we intend to designate the commonest and most important form of gold flow; that is, the phenomenon to which an economist is supposed to refer when he speaks of a specie movement without a qualifying adjective. The function of this form of shipment is to discharge such balances of international indebtedness as must continually arise in consequence of the total trade and travel between nations. We catalogue the several familiar items which enter into the total account of international debits and credits, because discussion of the difference between "financial" and "commercial" shipments will require reference to this list. The factors in the balance of international indebtedness are: (1) the export and import of goods (*i.e.*, the "balance of trade"); (2) freight charges for goods carried in foreign-owned ships and the outlays of ships in foreign ports; (3) foreign sales and purchases of bonds and stocks; (4) the interest on foreign-held bonds and stocks (the sale of a security establishes a credit for its price, but the interest subsequently to be paid upon it adds to the national debits for the ensuing years); (5) insurance, brokerage, collection, and similar charges made by parties in one country for services rendered those in another; (6) expenditures of travellers abroad and savings of immigrants brought from abroad (when funds are carried by letter of credit or draft). As a result of trade, traffic, and travel, two great debit and credit accounts are established. The totals of these fluctuate somewhat as do the resources and liabilities of a bank, but at any given time there may be a difference between the entire debits and credits. As soon as this balance manifests itself in the demand for and supply of bills of foreign exchange (speaking of the gold-using world), a commercial shipment of gold is produced in satisfaction of it. It may seem a stretch of the word "commercial" to make it cover shipments which are in part due to the influence of many items above which do not originate in mere commerce in the narrowest sense. The aim is simply to distinguish shipments of gold ascribable to the above group of influences,—to the total international trade, traffic, and travel, as it was expressed,—from shipments due to the movements of the discount rates in monetary capitals. The "commercial" influences act independently of comparative rates of discount, and independently of all the operations of foreign bankers. They establish the given or predetermined conditions for foreign bankers and shippers of gold, upon which their operations must be founded, just as the general domestic business and commerce of a country form the basis upon which ordinary banking is conducted.

"Financial shipments" is the name we have chosen for those produced by differences in the rates of discount in international monetary centres. They may occur in two forms: (1) as direct loans of gold, presumably upon collateral; and (2) as shipments in payment for a purchase of floating securities. The first form is typical as far as principle is involved. If the rate of discount be higher in Berlin than in London, an actual shipment of gold may take place from England to Germany, the motive being the gain following from its employment abroad at a higher rate of loan interest.[1] A commercial shipment of gold always serves to discharge a previous international debt, but an initial financial shipment creates a debt and looks towards a future and early return shipment of gold. We say looks towards a return shipment, because the obligation to repay the borrowed gold may, in the course of trade, be liquidated by the debtor country's leaving gold with the creditor country which otherwise it might have drawn in the shape of a commercial shipment. A difference in the levels of discount rates may produce a financial shipment of the yellow metal by occasioning an export of securities from the place where the discount rate is high to the place where it is low. Here, precisely as in the other case, the gold flow moves from the market of low discount rates to that of high, but in the form of payment for securities purchased. For a rise of the rate of discount in London, for instance, tends to depress the selling price there of securities bearing a fixed interest, and thus tends to produce a sale of these elsewhere, in New York, for example, especially if the discount rate has fallen in that city.[2]

Though a sale of securities may, in this manner, produce a financial shipment of gold, another sale of securities may lead to a commercial shipment. For commercial shipments have been defined as those made to satisfy a balance of total indebtedness, and the exports and imports of securities have been represented to be an important factor in establishing this balance. How, then, are we to tell when the effect of sales of securities upon gold movements is a financial, when a commercial influence? If the movement of securities is really but a means whereby the force of the discount rate is brought to bear on the stream of gold, we must call the influence financial. But the fundamental reason for the foreign sale and purchase of securities is not in the least a question of the transitory ups and downs of the discount rates in the money centres. The normal purchase of foreign securities is but the paper process incidental to an investment of industrial capital abroad, and as such depends upon the rate of dividends to be had from placing money in foreign industrial undertakings. These dividends do not fluctuate with the money rates in the speculative centres (where the export of gold is felt so keenly), and it seems perfectly justifiable to say the normal bond or stock bought by a foreigner is not likely to be put on sale merely because in a few weeks the relative position of discount rates is altered. Those securities purchased or held abroad against the solid consideration of economic interest are *genuine investment securities*, while that mass of stocks and bonds which is ready to shift its ownership and residence at the call of a change of bank rates may be spoken of as *floating securities*. Speaking broadly, the investment security goes to a country to stay, until a change in comparative rates of general economic interest or some great national industrial event dislodges it. The difference between the two kinds is undoubtedly one of degree, but that is nothing against the distinction. The test is clear. If a security will be sold abroad because of a change in the bank rates, its influence on the gold movement is financial.[1]

---

[1] It should go without saying that change of the rates of discount does not always produce gold shipments, but commonly exhausts its influence in producing a movement of the rate of exchange within the margins of the shipping points.

[2] This point of the influence of discount rates upon export and import of securities is made with admirable clearness by Professor Laughlin. But one defending the Ricardian doctrine is compelled to deny that this is the fundamental force controlling specie movements.

---

[1] The two kinds of securities distinguished here are not necessarily stocks of different sorts of corporations. The intention of the holder determines the class.

Producers' shipments, made from the outlying regions of civilization, depend neither upon a previously established balance of total indebtedness nor upon rates of discount. Commercial and financial shipments depend upon the two last-named elements in order. The distinction in theory between the three types of specie movement is probably clear enough; but, we must hasten to admit, the different kinds are, as often as not, inextricably mingled in practice. Especially do the financial and commercial influences operate jointly, more frequently than not, in opposing directions. In this case the actual movement is the resultant of the forces.[1]

II.

Turning now to the final theory of our subject, we find that, according to the received doctrine, the gold supply of the world is divided among the gold-standard nations in certain regular proportions. The share of each country is adjusted to that of every other country. The proper share of a country, as distinguished from its actual stock, is well designated by the term *national quota*. The national quota is to be thought of as the normal centre about which the actual stock fluctuates. The conception is similar to that of the normal value of a commodity as the centre of oscillation of its actual market value. Under dynamic conditions these are also similar in that both are moving centres. The magnitude of each national quota depends upon the comparative amount of money work to be done in each country, and the degree to which this work is relieved by "representative money" and credit instruments. It is a fair supposition that there is a larger volume of monetary transactions in the United Kingdom than in either France or Germany; but the two latter countries possess much larger stocks of gold, which is explained by their inferior development in the use of credit instruments. In 1880, after the resumption of specie payments, the United States was reported to have a stock of gold of $326,000,000;[1] while on June 30, 1902, this stock is supposed to have risen to $1,174,000,000,[2] a sum three and one-half times that first named. About a decade ago (in 1891) the United States was reported to possess a stock of gold much less than that of France and but little larger than that of Germany or of Great Britain. After the lapse of the decade this country had a stock 37 per cent. larger than that of France, 54 per cent. larger than Germany's, and more than twice the extent of Great Britain's (that is, one 217 per cent. of Great Britain's stock).[3]

---

[1] A classification of the *influences affecting* gold shipments might have been made instead of a classification of the shipments themselves according to the influences to which they are subject, but the difference would be largely one of words only. We would soon find it convenient to speak of commercial shipments, though the analysis, narrowly construed, authorized us merely to speak of commercial influences upon shipments.

This absolute and relative growth of the national quota of the United States has been due, first, to the increase of the gold stock of the whole world, consequent upon the vast productions of recent times, and, secondly, to the increase of the volume of business, or of the money work to be done, in the United States, to a greater degree than the average increase for the world at large. In spite of our great development of so-called "deposit currency" as a means of effecting exchanges, our industrial and commercial growth has been such as to make our national quota outstrip all others in a fashion almost spectacular.

A mere glance at the statistics of the several national stocks of gold shows two things. These are not mere chance quantities; are not what they are at any given time simply because international dealings happened, as it were, to leave them in that state at that time. But they are quantities which certainly maintain themselves, and are subject to some law of their own. In the second place the amount of the normal national stock has nothing whatever to do with the home production of gold. The commonwealths of British Australia produced $217,000,000 and coined $135,000,000 of gold in the three years 1898–1900. Yet at the end of this period not even so much as they had coined in the three years remained as their stock of gold. For January 1, 1901, the gold stock of these states is reported as $128,000,000.[1] Australia would not benefit by keeping this gold, but above all cannot keep it. For it is a law of gold distribution itself that a surplus cannot accumulate. The surplus compels commerce. Similar phenomena would appear if the South African gold movements were examined. The stock of gold in the United States is in present times constantly being filled up by importations into our western ports of entry and constantly being relieved by discharge of gold to Europe from our eastern ports. In the three years 1900–02 the United States imported from Canada, Mexico, Japan, and Australasia (in excess of some trivial exports to these countries, almost all of which went to eastern Canada) $121,000,000 of gold. In the same three years we exported an excess of $103,000,000 to Europe over all importations from Europe.[2] Our importations from the producing regions named, coupled with our own production, fill our stock to overflowing, and compel a discharge. The manner in which the supplies of new gold spread

---

[1] *Report of Director of the Mint for* 1880. In 1873 the estimated stock was but $135,000,000.

[2] *Monthly Summary of Commerce and Finance*, February, 1903, p. 2331.

[3] Estimate of stocks of gold given in the *Reports of the Director of the Mint for* 1891 *and* 1901 compared.

[1] *Report of the Director of the Mint for* 1901, pp. 43 and 144–147.

[2] Figures compiled from the *Annual Reports on Commerce and Navigation of the United States for* 1900, 1901, *and* 1902. The imports from Canada are for the most part from the gold fields of the Far North-west, and come in ore and base bullion. Imports from Australasia are 95 per cent. British coin of Australasian mintage.

over the world, keeping the stocks of the nations in their true relations, requires us to believe that the national quotas are maintained by forces which exert some sort of control over the trade in goods. For the gold is distributed almost wholly in payment for commodities bought in the course of trade.

We come now to the question central to the purpose of this paper.[1] How is a nation's stock of gold held at the level of its national quota? The received theory of specie distribution answers this question in accordance with the first laws of economics, and its answer is as satisfying to an unprejudiced mind as is an explanation of a problem in mechanics which refers to the first laws of motion. It affirms that the national quota is maintained by the tendency of gold, like all economic commodities, to flow to places where its exchange value is highest. In other words, the stocks of gold of the several countries are at their respective national quotas when a movement of gold from one country to another would be a movement of gold to a place where it would have a lower exchange value. The exchange value of gold in commodities is the inverse of the general price level. Therefore, the theory signifies that the national quotas of gold are maintained against the dynamic influences of trade by movements of the general price levels in the countries concerned. When new departures in trade and traffic bring a situation in which a country's total credits no longer equal its total debits, so that a flow of gold is produced which causes its actual stock of that metal to vary from its true national quota, the flow of gold itself sets in action the forces which reverse it and restore the national quota. For, if a change in commerce necessitates a series of payments of gold from France to England that make France's stock too small and England's too large, the relative abundance of gold in England will raise gold prices there of things generally, while prices will fall in France. The result will be to encourage the sending of goods from France to England and to discourage the reverse trade. Export and import of commodities, it need hardly be pointed out, whatever be their ultimate connection with "comparative costs of production," are due solely to difference between the several countries in the prices of the goods traded. Now a rise of prices in England united with a fall of prices in France will increase French exports to England in either of two ways,—(1) more of the same goods that have already been standard French exports to England will be shipped than formerly, or (2) things which have just lacked a sufficient difference in price between France and England to make exportation pay will attain that difference through the movement of the general price levels. In a reverse manner, England's exports to France will be made less than they otherwise would have been. This combined effect upon the movement of goods will give France a comparative excess of exports of goods. England will have to pay for these. The payment constitutes the return of the gold required to restore the French national quota. Except for frictional influences, the excess exports from France must be of just that volume and endure for just that time necessary to restore the quota, since they are caused by the aberration of the actual stock from the quota, and should continue while that cause remains to operate. (In the mean time, of course, the French national quota may become a larger or smaller quantity.)

---

[1] In deciding the question of the ultimate forces of specie movements, nothing seems to depend upon the behavior of pure producers' shipments. After these shipments from the outskirts of industrial civilization have arrived within the borders of ordinary commerce, their future disposition depends entirely upon the course of commercial and financial shipments, and the question mentioned is to be answered by the study of these shipments.

III.

A complication in the theory of commercial shipments remains to be cleared up. An outflow of gold that impairs the national quota might be caused by an increase in our purchases of foreign securities or an increase in our freight charges owed foreign ship-owners. When this flow reacts on the subsequent course of the balance of total indebtedness so as to bring the gold back to the home country, does it do so by reducing our purchases of foreign securities or our employment of foreign ships? In all probability not. If, to take another debit item, American tourist expenditures abroad increase, the received theory requires that the debit account which they thus create for this nation be paid in the end by a corresponding increase in our exportations of common merchandise. If the increase in merchandise exportation should not immediately accompany the increase of travel, it would be drawn into being later by price conditions.

The received theory, amended by addition, teaches that the earliest adjusting factor in the balance of total indebtedness is the "balance of trade." Any increase in our debits abroad which is due to change in the other factors in total indebtedness—that is, due to the so-called "invisible balance of trade"—is in the end compensated for by an increase in our exportation of goods. This is the true account of the enormous standing excess of American exports of merchandise. The investment of capital abroad, the travel of tourists, and all the other factors outside of the balance of trade itself are the comparatively independent variables (*i.e.*, independent of specie movements), the balance of trade in goods is the *compensatory variable* in the balance sheet of total indebtedness.

It is true that one of the earliest means of settling an excess of debits abroad in a way to prevent exportation of gold is an exportation of securities. That is, floating securities, especially those in which there is speculation and those employed largely as collateral, may be exported because of the movements of the discount rates. As argued already, this is but a mode of bringing the financial influence to bear. The feature of this influence is that it is temporary and of strictly limited scope. If the exportation of gold is caused by a relative excess of imports of goods, this excessive importation must be stopped. Should this continue, the time would arrive only too soon when the discount rate would become an impotent influence on the flow of gold. If the balance of trade were to turn unfavorable to the United States, say to the extent of $10,000,000 a month, or $120,000,000 a year, and remain that way, every one knows that the corrective of elevating the rate of discount in New York would soon fail to restrain its cumulative force. It is because of the seasonal oscillation of the American balance of trade that the influence of money rates upon gold movements can assume such practical importance in our eyes. We may forget the Titanic underlying force of the balance of trade so long as it keeps its equilibrium. When in its minor vibrations it turns unfavorable and then swings favorable, the influence of the discount rate is a first-rate agency to exercise in the interim some control over the gold flows. In the event that production in the different nations pursues for a period a pretty even dynamical career, the balance[1] of indebtedness may remain in such a state of equilibrium, as far as large tendencies are concerned, that the shipments of gold which do take place are dominated by financial forces. But the rate of discount can be the ruling factor only while the "commercial" forces are quiescent. The national quotas of gold cannot be maintained unless the balance of total indebtedness which lies at the bottom of gold movements in the long run preserves its equilibrium.

---

[1] The employment of the word "balance" throughout this paper, now for balance-sheet, now for an equality of debits and credits, and again for the difference between these, is of course no departure from common usage.

Professor Laughlin himself has felt this, and consequently he assumes the "balance of exports and imports" at the outset of his argument (apparently as a sort of self-evident truth which, if it have a cause, at least does not need to be explained). To quote his words:—

> Without further delay, it may be permitted to pass to a statement of what seems, in my judgment, to be the true relation between prices and the international movement of gold. The essential truth in international trade is the well-recognized fact that imports are paid for by exports. In this sphere it is well understood that goods are exchanged against goods, and that the medium of exchange is merely a subsidiary agency devised for the convenience of traders.[1]

We have yet to inquire why exports and imports "tend to balance." In the opinion of the writer, absolutely the strongest argument for the received theory of specie distribution is that it is the sole and only hypothesis upon which this well-recognized tendency can be explained under the conditions of a monetary economy.

Let us see if this cannot be shown. If international exchange took place under conditions of real barter, it would indeed be impossible for exports and imports not to balance. For by hypothesis every good traded is exchanged directly for another good considered its equivalent by the parties to the transfer. But under actual conditions the individual exporter, so far from seeing to it that he receive an equivalent import of goods for those he sends abroad, is probably not an importer at all. It almost seems to be the business of foreign traders individually and collectively to break down the balance of exports and imports; for expansion of business, towards which all strive so assiduously, is but the effort to increase sales of merchandise for other people's gold. Amidst the multifarious enterprises of foreign traders the national stocks of gold keep substantially steady. For years, in earlier times, they maintained themselves against the machinations of mercantilist statesmanship, so called. Not even the death penalty frequently prescribed for exporting gold and silver served to augment the national stock beyond its proper proportions. The only explanation is that the economic conditions upon which the dealings of foreign traders depend are so controlled that those exportations or importations of goods are checked which would entail an aberration of the actual stock of gold from the national quota. These conditions can be none other than conditions of prices. Goods move because of price differences. An excessive flow of specie produced by a movement of goods can check itself only by affecting the cause of that movement of goods; *i.e.*, prices. When gold becomes relatively abundant in one country, it lowers the exchange ratio of gold to goods. Why not? Can the facts of international trade be explained on any other hypothesis? It seems to me that, in assuming the "balance of imports and exports" and attacking the received theory of specie distribution, Professor Laughlin really takes the position of denying the foundations of his own first premise. Without the premise that exports and imports of goods "tend to balance," the theory that the rates of discount are the fundamental forces of specie flows would fall immediately to the ground.

---

[1] Page 375 or [521, 522].

To conclude the statement of the received theory, it will be necessary to explain what the doctrine asserts with respect to the precise cause of specie movements and the cause of international trade itself. If I may be allowed to suggest, Professor Laughlin completely misapprehends the doctrine in this important point. He says:—

> It becomes perfectly clear that the movement of gold is a result, not the cause, of the movement of goods in international trade. While this is but a simple statement of patent facts, it is to be observed that this is not the sequence of events set down in the quantity theory, since that theory teaches that goods move after the change in quantity of the circulation within a country has affected prices.[1]

But the doctrine we are considering does not teach the absurdity that the origin of international trade in goods lies in a previously started movement of gold. It teaches only that, when the trade in goods has arisen, it will be controlled, not caused, by the action of gold flows on prices. To be precise, the immediate cause of a commercial gold movement is such a price of bills of foreign exchange as will make gold shipments profitable to professional exporters and importers of the yellow metal. But the cause of this cause is a balance of total indebtedness. The intermediary movements of foreign exchange are but the means through which the shipment is brought about. Thus the proximate cause of a commercial shipment of gold is always a balance of total indebtedness determined by the previous course of trade and traffic. Of course, any given commercial movement of gold is always a consequence of the preceding movements of goods associated with it; but a specie flow may react upon the subsequent course of trade, and will, when necessary to restore a national quota. If it is required that a first specie flow produce a second flow in the reverse direction, the second, when it comes, will in turn be the consequence of a movement of goods. But this movement of goods will have been due to the general condition of prices created by the first flow. It is not for an instant maintained that the kind of merchandise which constitutes the induced movement of goods, intermediate between the two gold flows, is determined by specie influences. The merely natural trade in goods between the countries is encouraged here and discouraged there. The theory is perfectly consistent and rectilinear in its description of causes.

---

[1] Page 377 [or 524].

IV.

We may now consider Professor Laughlin's further criticisms in detail. The great fault of the Ricardian doctrine would seem to be that it involves the quantity theory of the value of money. But this depends on what is understood by the quantity theory. The received theory of gold movements assumes merely that, when the quantity of gold in a market increases, the value of gold falls. All that is involved in this doctrine can be stated in the words of so distinguished a gold monometallist as Giffen; to wit, "The quantity of money is a material factor in determining the value of money."[1]

(1) In section 3 of his chapter, Professor Laughlin gives serially five "evident difficulties in using the classical theory whenever we try to explain modern conditions":—

> In the first place the action of the international markets, with telegraphic quotations from every part of the world, precludes the supposition that gold prices could in general remain on a higher level in one country than another (cost of carriage apart) even for a brief time.[2]

But the received theory affirms nothing as to how long separate price levels can remain apart. Again he says:—

> A century or so ago, or even among existing nations having no rapid communication with commercial countries (if there are any such), perhaps prices might, unknown to traders, remain at different levels in different countries. In that case, . . . possibly the level of prices

---

[1] Giffen, *Case against Bimetallism*, p. 216.

[2] Page 369 [or 517].

might be raised or lowered in these detached and remote nations by the addition or subtraction of gold in international trade.[1]

Be it admitted, then (solely for the sake of argument on the point of rapidity of communication), that, if communication of price news were slow enough, excess inflows of gold might raise prices, and in this way bring about the necessary counteracting outflow. Surely, mere reduction of the time of communication cannot alter the nature or principle of the process. As this time grows shorter, the price movement caused by an excess importation of gold would simply meet with a prompter importation of goods to set up the necessary counterbalancing flow of specie. In other words, improvement of communication decreases the extent of the movements of price levels. The several national stocks of gold may be likened to reservoirs connected by the pipes of gold movements. Commerce in goods anon forces a gold flow through the pipes which disturbs the level of the stocks. Now the quicker communication becomes, the speedier is the reaction against the disturbing gold movement. If the reaction attains to such perfection that the disturbances of levels become almost imperceptible, it is not because the forces are changed in nature, but because their action is facilitated. Would Professor Laughlin argue, because Chicago and Liverpool prices are adjusted one to the other by telegraph, that a difference in the price of wheat at these points is in present times no longer the cause of its movement between them, although perhaps in former days this was the case? The prices or values of things in different markets are brought together only by *movement* of these things. If the use of the telegraph were the only reason for doubting the operation of the Ricardian forces of specie distribution, the theory would certainly be most secure.

---

[1] Page 380 [or 526]. The words omitted from the passage are, "if gold were also the sole medium of exchange, and if there were no free coinage." These were left out to enable us to take one point at a time.

The following passage runs in a similar vein of criticism:—

> If prices in general fell one-half in England, and if they remained unchanged in the United States, . . . an enormous premium would exist on shipments only from England to the United States, and it would wholly stop all goods from leaving the United States for England. *Such an extreme case shows how absurd it must be to reason on the supposition that gold prices can maintain a different level in different countries.*[1]

The theory does not at all assert that prices maintain a different level in different countries. The stages in the process described by the doctrine are stated separately as (1) gold inflow, (2) rise of prices, (3) extra import of goods, (4) counterbalancing gold outflow. It is not meant that this process takes place in several disjointed steps with a certain interval of time between each. The steps are disjointed only in the analysis. As the first flow sets in, while it is running, the resisting price forces are generating. The extent of the first flow depends on the dynamic causes behind it, on its momentum. The extent to which the price level is disturbed depends on the same causes, but there is no question of the price level being maintained at an absurd place. It is restored to its normal position just as quickly as business readjustments, aided by the telegraph, can effect this result. Professor Laughlin's criticism here seems almost like an argument that gravity does not maintain the levels in connected reservoirs because it would be absurd to think of one level being twice as high as the other, since gravity itself would prevent this. He has stated that the enormous "premium" on export from England to the United States would make it absurd to think of the English price level falling one-half. Precisely, this sort of premium is the force postulated by the received theory. It is supposed to act early enough to prevent absurd situations.

---

[1] Pages 379-380 [or 526]. The Italics are mine.

(2) The second in the list of criticisms is as follows:—

> One country is trading with many other countries; and, even if that one received much gold, it would probably have come (even through some financial arbitrage centre) from all the countries it traded with (in its new exports). Thus no fall of prices may take place in the importing countries, *of such a nature* that the international movement of goods is needed to again bring about equilibrium.[1]

But one can hardly believe that, if two or more countries suffer loss of gold to some one country which has put out new exports, the effect on prices would be of a different "nature" than if one country lost the gold. If France and England together should lose $100,000,000 to the United States (each losing $50,000,000), it is hard to see how the effect on French prices would be of a different "nature" if France lost $50,000,000 alone. Whether France lose gold directly or through an arbitrage centre makes no difference, if she lose the gold. I may have mistaken Professor Laughlin's point, but to me the above criticism seems like an assertion that in explaining the forces which maintain the equality of levels in connected reservoirs the theory which holds good for two may fail for three or more.

(3) In the third place:—

> the [Ricardian] theory seems to regard the local value of gold as causing a change of prices within a country, while the value of gold is an affair of world-demand and world-supply.

The theory does not regard a change in the local value of gold as "causing" a change of local prices, but simply as being that change of prices. For decades the commonwealths of Australia have exported a vast quantity of gold. During a recent period the United States has received a great amount of gold from Australia and from the fields of the North-west, and during the same period this country has made correspondingly large net exports of gold to Europe. We explain these large and steady flows of the metal as being due to the slightly decreased exchange value of the same in the countries from which it moves. But Professor Laughlin considers that the "world-value" of a thing hangs to it, as it were, wherever it is, that a thing with a world-value cannot exchange locally at a different rate, no matter what the local conditions of supply. But an economic good, commodity or gold, has a world-value when it is used throughout the commercial world and when it is free to move between the parts of the world The uniformity of its value in all the parts (putting aside differences due to costs of transportation) which we name a "world-value" is not perfect; and, so far as it exists, it is maintained by means of the movements of the good between the parts of the world. These movements themselves are due to minor differences in the value of the good in different places. The differences are constantly appearing, and the movements are constantly reducing or removing them.

---

[1] Page 369 [or 517]. The Italics are mine.

(4) The fourth count is stated in these words:—

> The causes permitting a new export are individual and not general; are due to relative expenses of production or to changes in relative demand and supply, and not to a general change of prices.[1]

Here is suggested the often alleged antagonism between the theory that prices depend on the supply of money and the theory that the price of any given good depends on its cost of production. The antagonism is quite fictitious. The law that cost of production (no matter which form of cost is intended) regulates exchange-values signifies merely that, if A exchange for B, it is because an A costs the same as a B. The law holds perfectly good whether A is worth $4 and B $4 or A $2 and B $2 in gold. There is no inconsistency between the law of costs and the theory that a change in the supply of gold will alter gold's exchange relations with all other goods. Grant that the exchange value of steel rails or cotton depends on their supplies, no one would say that their exchange ratios with wheat, for instance, do not depend also on the supply of wheat. The exchange ratio between steel and wheat will alter because of either a change in the steel supply or the wheat supply (or demand as well). It is just as easy to see that the exchange ratio of steel to gold can alter with a change in the cost of production and supply of steel, or with a change in the supply of gold as well.

---

[1] Page 371 [or 518].

(5) The fifth count involves Professor Laughlin's new theory of credit in relation to money. The argument is, namely, that imports of specie cannot affect prices because specie all goes into the reserves of banks.[1] In support of the received theory the argument runs that incoming gold which enters bank reserves will act on prices as well as if it enters circulation. When reserves are increased, the limits of loans are widened. A widening of these limits is not necessarily followed by an increase of loans under every conceivable circumstance; but it is absolutely commonplace that normally imports of gold increase loans and exports of gold decrease them. If, in the course of a year's trade, the country's stock of gold is augmented

---

[1] It is often stated that all the gold money in this country is in the bank and government treasury. This is, however, by no means certain. In the *Report of the Director of the Mint for* 1902, p. 54, it is declared that of the estimated gold stock in this country, June 30, 1901, $1,015,000,000, only 64 per cent. can be located in the treasury and in all the banks of all kinds in the country. This leaves 36 per cent., minus an indeterminate amount for the accounts of hoarded and lost gold, as the estimated gold in actual circulation.

by unusual inflows, bank loans will be more expanded than they would have been *otherwise.* This means that throughout the "business world" generally there will be more buyers of goods ready to offer acceptable "purchasing power,"—*i.e.*, bank credit,—than would be the case otherwise. If loans are easy, if money is "cheap," it will pay men better to embark in new business departures or to expand old business. At a given point of time the stock of goods of all kinds that can be sold is absolutely fixed. Time is required everywhere to meet increased money demand. Expansion of bank loans increases the number and competition of buyers and does not increase the number or competition of sellers. In this way an abundance of gold entering bank reserves makes prices rise. The common belief that plenty of money at home makes "business boom" and prices rise is not the result of any abstract speculation on the part of the "populace," but is merely the product of common experience.

To these considerations, with which he is of course familiar, Professor Laughlin replies:—

> In legitimate banking, loans are made because of satisfactory collateral or actual transfers of goods, and not merely because reserves are high. To be sure, if reserves rise, more loans are possible and rates of interest will fall; but merely because a bank can loan, it does not follow that it does loan.[1]

The point is not stated straight from the shoulder. There is one too many "merelys" in the citation. No one has suggested that loans are not made because of satisfactory collateral. Loans are made with a view both to the security offered and the specie in the bank. When a banker's specie holdings increase, he lowers his rates sufficiently to call out enough desirable applications for loans to enable him to expand his interest-bearing lendings.[1] His motive is to make the reserve earn. The doctrine that the amount of loans and accommodation to be had by the public from the banks does not depend on the reserves because it depends on the character of the collateral is hard to understand in the light of the painstaking account kept in monetary centres of the accessions and withdrawals of gold. It seems as if those most concerned regard international movements of gold as anything but a mere change "of place of storage," as Professor Laughlin at one place calls them. The practice of financial reviews in connecting the course of the reserves with the future rate upon and volume of loans has persisted since there has been an organized banking money market Are we to infer there is no basis in actual tendencies for this practice?

---

[1] Page 387 [or 533].

Chart I. accompanying this paper shows the course of the loans and discounts of the Associated Banks of New York City during a period of nearly six months, from December 13, 1902, to May 9, 1903, in relation to the reserves of these banks for the same time. But, as indicated on the margin, the course of the reserves for any given series of dates is placed directly under that of the loans for a period just three weeks later. The movement of the loans is (in part) a consequence of the movement of the reserves; and it was found that, with remarkable uniformity, it takes three weeks for the changes in reserves to work their effect upon the loans. The relation of the two movements here charted is by no means always so close in detail as in this period, but there is ever present a tendency for

---

[1] It is not asserted that either the loans or deposits of a bank must bear the same fixed percentage to the cash reserve in all times and in all places. How much the proportions of the necessary reserve will be reduced in the future is an interesting question. The proposition is solely, at a given time and in a given place, then and there, an increase in reserves will increase loans. The time may come when we will exchange goods solely by means of a medium of credit instruments. So may the time come when we will have "ideal" money; *i.e.*, without material or bullion value. But a theory of credit is supposed to be an analysis of things as they are.

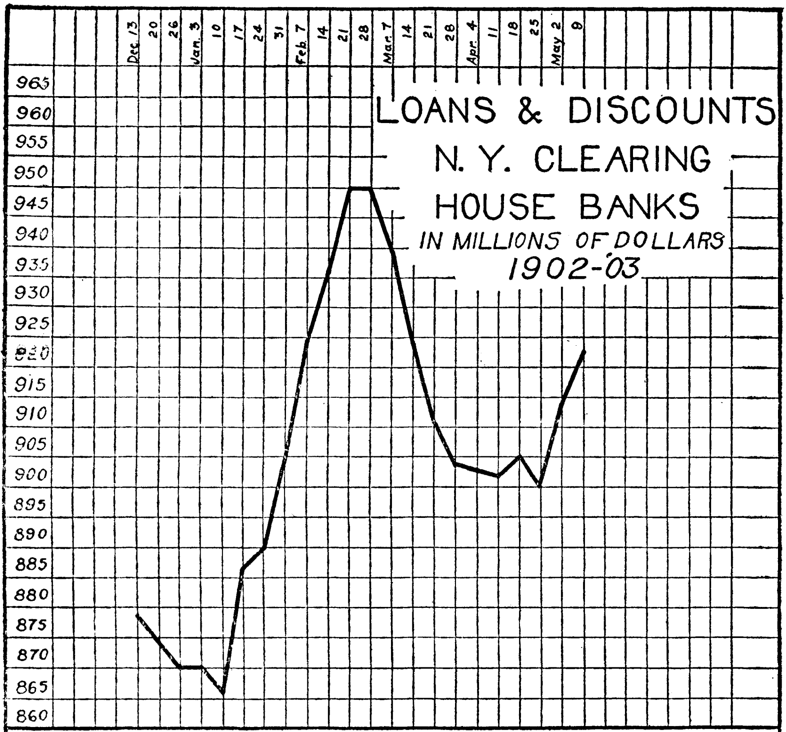
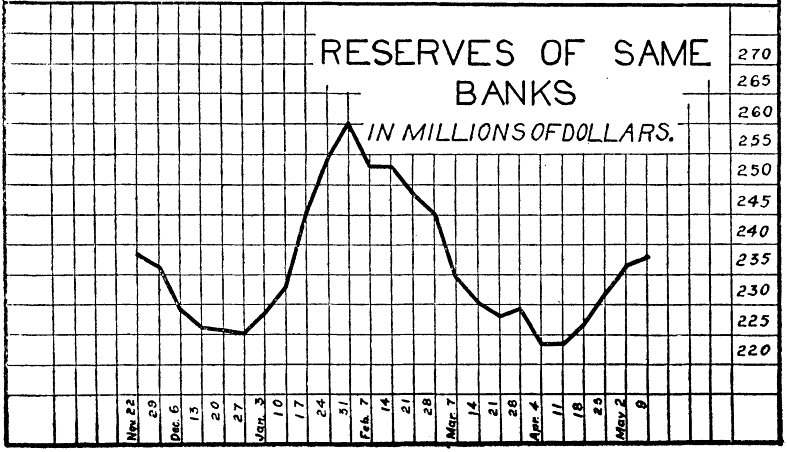


CHART I.

SHOWING DEPENDENCE OF LOANS ON RESERVES.



loans to contract and expand with reserves, so strong that Professor Laughlin's doctrine seems most remarkable in view of the facts. That imported specie entering the reserves of home banks tends to expand loans is absolutely incontrovertible. Exceptional circumstances apart, it does expand loans. A loan is used by the party accommodated to enable him to become a buyer. The effect on prices follows naturally.

Professor Laughlin's theory of credit makes the assumption that it is a matter of indifference to the volume of bank loans in a money centre whether gold is being exported from or imported to that centre. The conduct of the writers of the New York money articles in keeping such scrupulously accurate account of the movements of specie is inexplicable on his theory.

V.

Yet another attack remains to be considered:—

> The recognition of the force exerted by the rate of interest on the movement of loanable capital gives the final *coup de grâce* to the old theory.[1]

It is hoped the discussion already given of the relation between "financial" and "commercial" shipments has been sufficient to show both that it is entirely compatible with the Ricardian theory to recognize the full force of money rates on the gold movement and that this force is entirely subordinate to commercial forces. The great course of trade and traffic which determines the balance of international indebtedness does not depend on the relative rates of discount in the monetary capitals, but the movement of these rates is very largely determined by the influence of the balance of total indebtedness. The futility of contending that the rates of discount, or the general rates of economic interest, exercise ultimate control over specie movements is shown by the statistics of any gold movement. For years Australia has exported vast quantities of gold to the Old World, the stream flowing away from Australia all the time, while interest on money was higher there than in the Old World. This stream goes in the shape of shipments to pay for excess imports of merchandise. The excess is due to the fact that Australia is perpetually having her stock of gold augmented beyond the requirements of her national quota. This means that gold prices run high in Australia. The discount rate does not enter into the problem.

---

[1] Page 383 [or 529].

TABLE OF SOME PRINCIPAL GOLD SHIPMENTS FROM NEW YORK, 1900–01.

Gold Export from New York.[1]		Discount Rates.[2]			
		New York.	London.	Paris.	
July 18, 1900	$2,028,000 to France	3¾–4½	3	3%	July 13
Aug. 8, 1900	3,308,000 " England	4–5	4	3%	Aug. 3
" 8, 1900	2,008,000 " France	4–5	4	3%	Aug. 3
" 10, 1900	3,325,000 " England	4–5	4	3%	Aug. 10
" 14, 1900	8,204,000 " England	4–5	4	3%	Aug. 10
and so on					
May 29, 1901	4,052,000 " France	4–4½	4	3%	May 25

If forces of interest rates were the adjusters of national quotas of gold, each country would have its national quota when its interest rates were on a level with those of other countries. But gold flows are not the means of bringing interest rates together. Interest rates are not low where gold is plentiful, but the contrary is a common case. If the interest rates of Australia are to be brought to the level of those of Europe, the result must be accomplished by the shipment of real capital goods to Australia. If such goods appear in the imports of merchandise into Australia, and help to make an excess of imports, the reason why they are not paid for by exports of raw materials,—*i.e.*, by merchandise exports,—alone is because Australia has the gold to pay a reckoning of excess imports. If the discount rates were the controlling factor in gold movements, how could it be explained that New York is constantly exporting gold to Europe when New York discount rates are higher than European?

---

[1] From *Report of the Director of the Mint*, 1901, pp. 84, 85.

[2] From the *Monthly Summary of Commerce and Finance*, June, 1901, p. 3094.

VI.

Professor Laughlin advances several statistical points which he considers to refute the classical theory of specie distribution. For instance, our attention is directed to the following table (the last column of which is added by the present writer):[1]—

Years.	Excess of Imports of Gold.	Exports of Merchandise.	Imports of Merchandise.	Excess of Exports of Merchandise.
1878	$4,100,000	$694,800,000	$437,000,000	$257,000,000
1879	1,000,000	710,400,000	445,700,000	264,000,000
1880	77,100,000	835,600,000	667,900,000	167,000,000
1881	97,500,000	902,300,000	642,600,000	259,000,000
1882	1,700,000	750,500,000	724,600,000	25,000,000
1883	6,100,000	823,800,000	723,100,000	100,000,000

It is pointed out that through the period 1878–83 the United States received a large volume of net imports of gold. According to the received theory, says Professor Laughlin, our exports of merchandise ought to have been reduced and our imports increased by this inflow of gold. Instead of this our exports advanced through the period. This is the sum total of the criticism.[2] It will hardly stand examination. (1) In the first place the theory requires that during such a period only the *excess* of our exports over imports of merchandise should decrease (and this it requires only under certain circumstances). With foreign trade expanding, both exports and imports might increase, while simultaneously the excess of exports over imports decreases; and this happened during these years. In the first half of the period (three years) we exported an excess of goods of $688,000,000. Then came the great influx of gold in the two middle years of $174,000,000 (net). Thereupon in the second half of the period (three years) our excess exports of goods dropped to $384,000,000, which is but 55 per cent. of $688,000,000. After all, it appears as if the influx of gold did have the required effect upon our excess of exports.

---

[1] Page 373 [or 520].

[2] See p. 373 [or 521].

(2) But beyond this the Ricardian theory does not require that the accessions of gold to the United States during this period should necessarily have any reaction upon the balance of trade. The theory requires that the national quota of the country be maintained by commerce. When the national quota increases (by reason of the growth of the volume of the business of the country), the theory requires precisely that commerce shall produce and maintain an excess importation of gold,[1] which will enable the actual stock to keep pace with the national quota. Thus in virtue of the very force postulated in the received theory there may exist periods in a country's commercial history during which there ought to be continuous outflows of gold or, in other cases, continuous inflows.[2]

The statistics given by Professor Laughlin for the period 1889–96 are no more harmful to the old theory than the table just considered. In both cases the criticism is based on the assumption that the theory necessitates certain statistical consequences which in fact, as can easily be shown, it does not require.

---

[1] Unless home production in excess of consumption in the arts suffices.

[2] During the decade of 1892–1901 France imported a clear excess of $300,000,000 of gold. As France produces no gold, this great inflow is required to supply her consumption and keep her actual stock up to her advancing national quota. Figures compiled from *Monthly Summary of Commerce and Finance*, February, 1903, p. 2289. The Ricardian forces compel her commerce to bring her this gold.

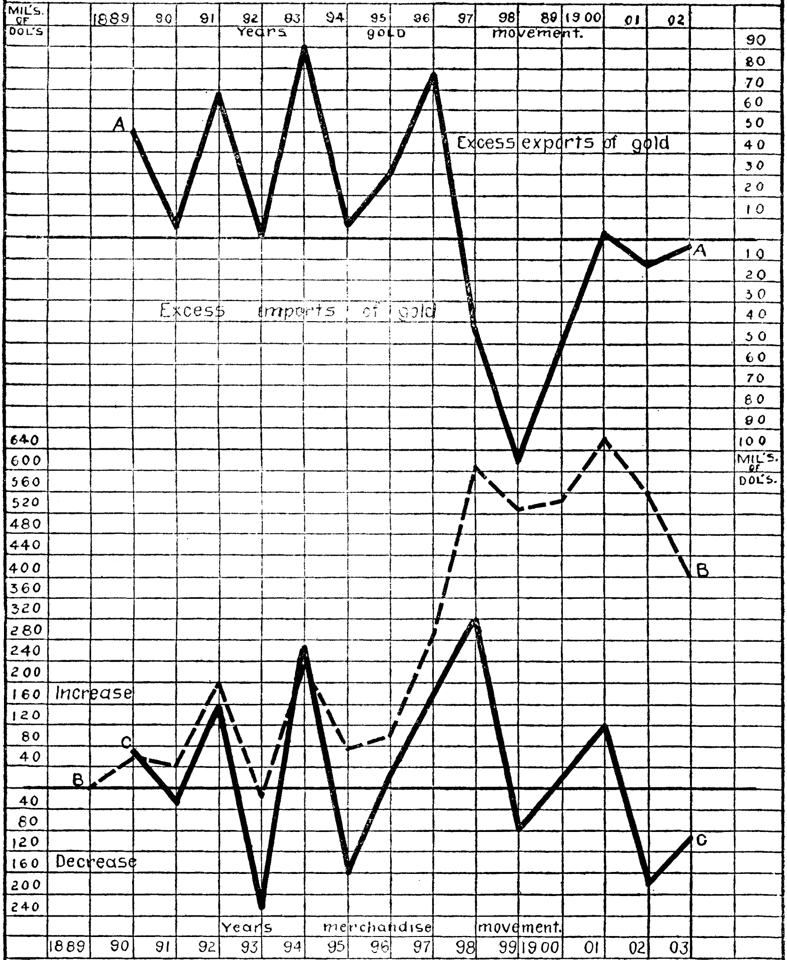
(3) The classical theory does not pretend that its price forces control the balance of imports and exports further than is necessary for the maintenance of the national quotas. Great changes in the balance of trade may be a matter of entire indifference to these forces. When a country comes to have surplus capital to invest abroad, it may begin to purchase securities from foreign countries (including its own formerly purchased by the foreigners) upon a grand scale. It will pay for these by an increase in its excess of exports. This is what the United States seems to be doing at the present time. Our enormous excess of exports does not act to bring us too much gold. Many movements of the balance of trade do not touch the gold stock.

Every year in recent times has witnessed an excess of exports from the United States over imports. Now, if we compare this excess each year with the preceding year, to note the increase or decrease of the EXCESS itself, an interesting relation appears between this movement and the gold movement. (See Chart II.)

In Chart II. lines B and C are so placed that the sections of them for each year are directly under the sections of line A for the years just preceding. If fluctuations of the gold movement react on commerce (through prices), their effects must come after their own occurrence. A year is entirely an arbitrary time to allow for the effect; but, as our most accessible statistics come by years, we may proceed with the gold movement curve one year ahead of the balance of trade curve in the hope of obtaining a tentative result. The decline together of the first joints of the curves A and C signifies that the decrease in our exportation of gold for 1890 as compared with

CHART II

SHOWING REACTION OF GOLD MOVEMENT ON MERCHANDISE MOVEMENT.



EXPLANATION.

A-A. Curve of U.S. net gold exports or imports in millions of dollars.
B-B. Curve of U.S. excess exports of merchandise in millions of dollars.
C-C. Curve showing the increase or decrease of each years exports of merchandise compared with the excess of the year just preceding.
B-B and C-C are on the same scale. A-A is on a separate scale.
For further explanation see text.

1889 was followed by a decrease in the excess of our merchandise exports the next year. The second joint of the gold movement curve rises as if by reaction (from a net export of gold of $4,000,000 in 1890 to one of $68,000,000 in 1891). The second joint of curve C thereupon rises as well. This indicates that the excess of merchandise exports for 1892 increased $163,000,000 over the excess for 1891. It will be noted, in the period of twelve years charted, these lines rise and fall together except for the year 1898, when curve C rises where a fall was required to make the chart regular. By way of compensation, however, in the next year the curve makes a very great drop.[1]

TABLE FROM WHICH CHART II. IS MADE (000,000 OMITTED).

Year.	Excess of Exports over Imports of Goods.	Increase (+), Decrease (—) of Each Year's Excess Compared with the Preceding.	Net Excess of Gold Movement. Exports (+). Imports (—).
1889	—2[2]	—	+49
1890	68	+70	+4
1891	39	—29	+68
1892	202	+163	+0.4
1893	—18[2]	—220	+87
1894	237	+255	+4
1895	75	—162	+30
1896	102	+27	+78
1897	286	+184	—44
1898	615	+329	—104
1899	529	—86	—51
1900	544	+15	+3
1901	664	+120	—12
1902	478	—186	—3
1903	394	—84	—

---

[1] Curve B indicates the simple course of our excess of exports of goods with the same base line and scale as C. Curve B plots the figures of the first column of the table given on page 49. The vertical scale of B and C is one-fourth that of A. The difference of scale was adopted simply as a matter of convenience to keep curves B and C on the sheet. The direction of the balance of trade line is to be compared with the direction of the gold movement line. The lengths of their respective joints are not comparable, nor would they be with equal scales.

[2] Excess of imports.

The writer's tentative interpretation of Chart II. must be put as briefly as possible. In this period of twelve years our excess of exports of goods (our "favorable balance of trade") has increased in a phenomenal manner. In 1891 it was $39,000,000, in 1901 $664,000,000. In the latter five years of this period (1897–1901) we imported a net excess of $210,000,000 of gold. This is about 8 per cent. of the excess merchandise exports. The remaining 92 per cent., or $2,430,000,000, must be balanced against other debits than gold received. That is, since we did not give these goods away, we must have become indebted to the outside world for this immense sum in certain of the leading accounts in "the balance of total indebtedness" other than merchandise, such as foreign securities purchased (as permanent investments) and the rest. As explained already, so far as this increase of exports of goods is but payment for equivalent values received other than gold, the gold stock of the country is not affected by them, and the price forces of the received theory are not called to action. But, as the excess of exports increased through these years, it rose by jerks. In a nutshell, it is these jerks that we find correlated with the gold movement. The explanation, therefore, runs as follows. Dynamical influences (of production and commerce, entirely independent of the Ricardian specie forces) led our excess of exports to increase generally through the period. But, while pursuing this general line, the excess swings from side to side along the course. Let us adopt the term "invisible balance of trade" for the sum of all the accounts other than the real "balance of trade" (in goods), which enter the "total balance of indebtedness." Now, whether the "invisible balance of trade" remains constant or shows an increasing excess of credits or of debits, the real "balance of trade" in adjusting itself to this movement[1] is certain to oscillate about its necessary course. Its necessary course is that which will compensate for an excess of the "invisible balance" either way, and bring the total national debits and credits to an equality (or, more precisely, to that position which will occasion that gold movement which is requisite to preserve the national quota). Along the dynamical path of our foreign commerce at one time our exports swing too far in excess even of our expanding debits, then again they swing below them. Thus they produce flows of gold, at one time to the country and again from it. Whenever this is their effect, the Ricardian forces, reacting against disturbing gold flows, throw the excess of exports back into its proper position. When under its true trajectory, the excess is encouraged; when over it, restrained. All is accomplished by gentle movements of the home price level relatively to foreign price levels. A movement of the price level produced by a given flow of gold may of course lead to a movement of commodities many times the volume of the flow of gold. Indeed, it is probably this fact which accounts for the very strong reactions, or alternations, which appear in the curves plotted in Chart II. In view of these relations, which are found upon entering the vestibule of the statistical problem, the writer feels justified in claiming a presumption that statistics will confirm the received theory, should they be exhaustively studied. That is, provided they can be made conclusive one way or another.[2]

---

[1] Compare the argument in earlier pages that the compensatory variable in the total balance sheet of international debits is the trade in goods,

[2] The writer has prepared a chart showing the reactions between the gold movement and the movements of the general price level in the United States for the period of 1890 to 1900. A remarkable interaction appears between the gold movement and the lesser oscillations of the price level about its general course through these years. The present article is already too long to permit presentation and discussion of this chart.

VII.

The received theory of the international distribution of specie could be stated in a short paragraph. But to expound it fully and to determine, as far as we are competent, whether it is true in view of the attacks upon it, has required a discussion of weary length. This only shows that any proposition of economic theory is one of high cost. To explain the large and permanent fact that a nation's total commercial debits and credits must balance, so that, in the end, no nation gives up its money to obtain foreign goods or services, an hypothesis suggested itself to Ricardo. He, though a broker by profession, was able to see beyond the maze of proximate business intricacies which so often confuse persons who stand too close in to them, and thus to formulate one of the finest doctrines of economic theory. The concluding word for the doctrine is that it possesses the threefold merit: (1) that it is an hypothesis which explains the problem, being in this without a rival; (2) that it is virtually a corollary of the first law of economics, the law of supply and demand; (3) that neither a sound theoretical nor statistical disproof of it is extant. That is to say, the last is true, unless the conclusions of this paper are very much mistaken. The best theoretical evidence we have for the quantity theory is that it is the only explanation of the facts of the international movement of gold. If the quantity theory were not true, it would be a matter of entire indifference what the stock of gold money might be in any country.

A. C. Whitaker.

Stanford University